14085 Howard Rd
Dayton, MD 21036

TRP Inc.

April 25, 2007

Electronic Filing

Ms. Marlene Dortch
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

ET Docket No. 06-216
Notification of Ex Parte Presentation

Dear Ms. Dortch:

On April 24, 2007, the undersigned consultant to Siemens Milltronics Process Instruments Inc., ("Siemens") together with numerous members of industry suppliers of Tank Level Probing Radar ("TLPR") met to with members of the staff of the Commission's Office of Engineering and Technology ("OET") to discuss proposals for providing a regulatory structure to permit TLPR devices. The subject of the discussion was in regard to a pending Waiver Request ("Waiver") of the Commission's Rules and a Petition for Rulemaking ("Petition") to permit the band 77 – 81 GHz to be used by TLPR under Part 15 of the Commission's Rules. The above Waiver and Petition were previously filed by Siemens on November 7, 2006.

During the meeting the industry representatives articulated their consensus support for expeditious grant of the Waiver Request and also for expansion of the scope of any Notice of Proposed Rulemaking ("NPRM") released pursuant to the Petition to propose the use of the 75 to 85 GHz for TLPR. This request was based on comments received pursuant to the Petition as filed. Industry also expressed their desire that should any portion of the 75 to 85 GHz become contentious thus creating delays in providing for TLPR, the originally requested 77 to 81 GHz band be expeditiously granted with the remaining spectrum addressed thru a future proceeding as specified by the Commission.

Sincerely,

Phillip Inglis
Consultant for Siemens

cc: Julius Knapp
Bruce Romano
Karen Rackley
Alan Stillwell
Anh Wride
Geraldine Matise

Encls:

Waiver and Notice of Proposed Rulemaking
78 GHz Level Radar

Before the FCC
By: Jos Duivenvoorden
Date: April 24, 2007

SIEMENS

Waiver and Notice of Proposed Rule Making

Meeting before the FCC

- Siemens and industry
- Current limitations
- Goal and background of the waiver
- Goal and background of the NPRM
- Proposed tests with standard
- Benefit to the customer
- Industry consensus

Introduction to SIEMENS

475 000 employees world wide, HQ Germany
US $118 billion sales in 2006
Since 1847

Automation and Drives
Sensors and Communication
Siemens Milltronics Process Instruments
Peterborough, Ontario, Canada
350 employees (50 R&D)

Level measurement
Radar, Ultrasonic, Capacitance

Process Instrumentation Locations

Siemens Milltronics Process Instruments Inc. Peterborough, Canada

Siemens S.A.S, Haguenau, France

Siemens Energy & Automation Bartlesville, OK, USA

Danfoss A/S Nordborg, DK

Danfoss Flowmetering Ltd. Stonehouse, UK

Siemens Energy & Automation Springhouse, PA, USA

Overview of 95% of market

Endress+Hauser

ENRAF

KROHNE

EMERSON Process Management

ROSEMOUNT

SIEMENS

VEGA

Limitations of present radars

Traditionally used Frequencies of operation:

6.3 GHz 10 GHz 26 GHz
Bandwidth approx: 1 GHz

Consequences:

Wide antenna beam or large aperture
Limited resolution (related to band width)

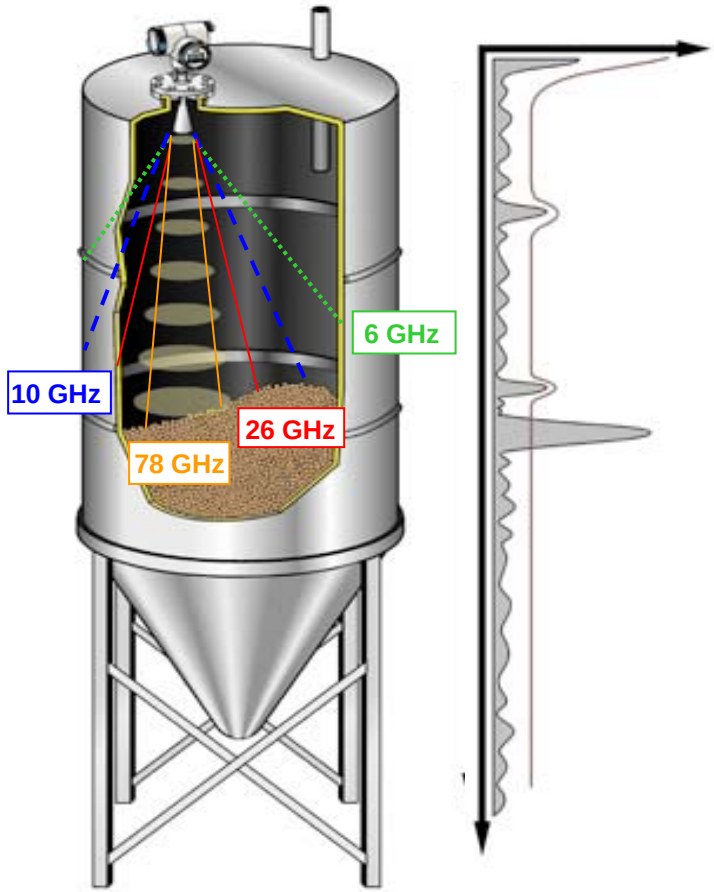
Result:

Accuracy mainly determined by environment
Secondary echoes influence reliability

High accuracy:

Demand controlled environment e.g. stilling well

Operation in solids environment



Anticipated installations

Hydrocarbon Processing

Chemical

Mining Aggregates Cement

Food and Beverage

Waiver and NPRM

Waiver:

Section 15.205 limited to 38.6 GHz
Frequency use: 78 GHz – 79 GHz FMCW
According to 15.209(a) (500 muV/m @ 3m)SPURIOUS ONLY
Bench testing and in situ measurements for metal and concrete enclosed tanks – COMPARABLE TO EXISTING RULES

NPRM:

New regulations within part 15:
Frequency use: 77 GHz – 81 GHz
According to 15.209(a)
Bench testing and in situ measurements for tanks– BASIS FOR EXPANDED APPLICABILITY

Joint industry support

Industry Supports Rapid Issuance of Siemens Waiver and others that may follow.

- **a. Allows FCC and industry to collect installation information**
- **b. Develop record of technology performance**
- **c. Input information to NPRM**

Industry Supports Release of NPRM

- **a. Provides industry with reasonable assurance of final regulatory framework**
- **b. Information collected under the waivers would be useful in determining future needs**

Test labs

Several test labs have been found that can provide test facilities that are required by the waiver and proposed new rule making

Such as:

RFI Global (Texas) >250 GHz (narrow band width)

PCTEST (Maryland) >250 GHz (narrow band width)

Benefit to the customer

Antenna:

Better selectivity with narrow antenna beam

Small apertures IDEAL for MANY installations

Bandwidth vs range resolution:

1 GHz	**0.15 m**
4 GHz	**0.04 m**
10 GHz	**0.015 m**

Less environmental influence on accuracy

Customer support

Verbal support for the waiver & NPRM from the following companies

Cargill
Lafarge
Cemex
Holcim
BASF
Exxon
Dow

Industry group consensus

Siemens asked for 77 GHz to 81 GHz in NPRM

Industry proposed via comments a bandwidth of 10 GHz.

Industry consensus: harmonize with ETSI
Preferred from 75 GHz to 85 GHz

Should any of this band be controversial, the industry consensus is to expedite the non-controversial spectrum while pursuing rulemaking for entire 10 GHz spectrum

Industry consensus supports waiver request

Discussion and Questions

- **Procedure ahead**
- **Time line**

Name	Organization	E-mail
Julius Knapp	FCC/OET	JULIUS.KNAPP@FCC.GOV
Phillip Loyd	TAP/Siemens	jinglis@erols.com
Don Cummings	Endress+Hauser, Inc.	don.cummings@us.endress.co
Peter Woefer	Endress+Hauser	peter.woefer@pcm.endress.co
MIKAEL KLEMAN	EPM ROSEMOUNT	mikael.kleman@emersonprocess.com
GERALDINE MATISE	FCC/OET	GERALDINE.MATISE@fcc.gov
ANH WRIDE	FCC/OET	anh.wride@fcc.gov
TERRY MAHN	Fish & Richardson	mahn@fr.com
BRIAN ELLIOTT	KROHNE Inc.	ELLIOTT@KROHNE.com
Uwe Wegemann	KROHNE, Germany	uwegemann@krohne.de
Gregory Tischler	Ohmart/VEGA	gtischler@ohmartvega.com
Art Wall	RRC, Inc.	awall@atlanticbb.net
Holger Sack	VEGA, Germany	h.sack@de.vega.com
FRANK VAN BEKKUM	ENRAF	fvanbekkum@us.enraf.com
IAN VAN ZYL	SIEMENS	ian.vanzyl@siemens.com
Karen Rackley	FCC/OET	Karen.rackley@fcc.gov
Bruce Romano	FCC/OET	——→@fcc.gov
Alan Stillwell	FCC/OET	alanstillwell@fcc.gov
Bob Ungar	Fish & Richardson	ungar@fr.com
Jos Duivenvoorden	Siemens	jos.duivenvoorden@siemens.com